#### **CLAIMS**

We claim:

1. A compound having the formula (I):

and salts thereof;

wherein R is:

wherein X and X" are independently selected from C=O, C=S, C=NH, C=NR $^{\rm X}$ , S=O or SO<sub>2</sub>;

wherein n is 0 or 1;

 $\label{eq:wherein R} wherein R^X is selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl, hydroxyl, alkoxy, carboxy or carboalkoxy.$ 

wherein B is  $X^nR^Y$ , H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl, and

 $\label{eq:wherein R} wherein R^Y is selected from hydrido, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or hydroxyl;$ 

wherein A is H, NH2, NHR^A, NR^AR^B, heteroaryl, cycloalkyl or heterocyclyl;

or

wherein R<sup>A</sup> and R<sup>B</sup> are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or carboalkoxy;

wherein when n is 0, then A is additionally selected from:

 $\label{eq:continuous} wherein each \, R^{50} - R^{53} \mbox{ is independently selected from (C_1-C_{15}) alkyl;} \\ provided that when B \mbox{ is H and X is C=O, then A is other than}$ 

- (a) a pyridinyl ring substituted with a single NHC(O)R<sup>D</sup> substitutent
- (b) a  $(C_5-C_6)$  saturated cycloalkyl ring substituted with a single NHC(O)R<sup>D</sup> substitutent, wherein R<sup>D</sup> is  $(C_1-C_{17})$  unsubstituted alkyl or  $(C_2-C_{17})$  unsubstituted alkenyl; and

when B is H and n is 0, then A is not H:

wherein R1 is

 $\label{eq:condition} \text{wherein } X' \text{ and } X''' \text{ are independently selected from $C$=0, $C$=$NH, $C$=$NR$^X', $S$=0 or $SO_2$;}$ 

wherein m is 0 or 1;

 $\label{eq:wherein R} wherein \, R^X \ is \ selected \ from \ alkyl, \ alkenyl, \ alkynyl, \ aryl, \ heteroaryl, \ cycloalkyl, \ heterocyclyl, \ hydroxyl, \ alkoxy, \ carboxy \ or \ carboalkoxy;$ 

wherein B' is  $X'''R^{Y'}$ , H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl;

 $\label{eq:wherein R} wherein R^{Y'} is selected from hydrido, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or hydroxyl;$ 

wherein A' is H, NH<sub>2</sub>, NHR<sup>A'</sup>, NR<sup>A'</sup>R<sup>B'</sup>, alkyl, alkenyl, alkynyl, alkoxy, aryloxy, aryl, heteroaryl, cycloalkyl or heterocyclyl;

 $\label{eq:wherein R^A' and R^B' are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or carboalkoxy;$ 

wherein when m is 0, then A' is additionally selected from:

$$- \left\{ \begin{array}{c} \bigcirc \\ \square \\ - \square$$

wherein each of  $R^{50}$ - $R^{53}$  is independently selected from  $C_1$ - $C_{15}$  alkyl; alternatively, wherein  $B^i$  and  $A^i$  together form a 5-7 membered heterocyclic or heteroaryl ring:

wherein R2 is

wherein K and K' together form a  $C_3$ - $C_7$  cycloalkyl or heterocyclyl ring or a  $C_3$ - $C_{10}$  aryl or heteroaryl ring;

wherein J is selected from the group consisting of hydrido, amino, NHR $^J$ , NR $^J$ R $^K$ , alkyl, alkenyl, alkynyl, alkoxy, aryloxy, aryl, heteroaryl, cycloalkyl, heterocyclyl, alkylamino, hydroxyl, thio, alkylthio, alkenylthio, sulfinyl, sulfonyl, azido, cyano, halo,

$$\underset{\mathsf{NR}^{24}\mathsf{R}^{25}}{\overset{\mathsf{S}}{\longrightarrow}} \quad \text{and} \quad \underset{\mathsf{OR}^{26}}{\overset{\mathsf{S}}{\longrightarrow}} \quad$$

wherein each of  $R^{24}$ ,  $R^{25}$ , and  $R^{26}$  is independently selected from the group consisting of alkyl, cycloalkyl, heterocyclyl, aryl and heteroaryl, or  $R^{24}$  and  $R^{25}$  together form a 5-8 membered heterocyclyl ring:

wherein  $R^1$  and  $R^K$  are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl; or

alternatively, wherein J, together with R<sup>17</sup>, forms a 5-8 membered heterocyclyl or cycloalkyl ring; or

alternatively, wherein J, together with both R<sup>17</sup> and R<sup>18</sup>, forms a 5-8 membered aryl, cycloalkyl, heterocyclyl or heteroaryl ring; and

wherein each of R<sup>17</sup> and R<sup>18</sup> is independently selected from the group consisting of hydrido, halo, hydroxyl, alkoxy, amino, thio, sulfinyl, sulfonyl and

wherein  $\mathbf{R}^{17}$  and  $\mathbf{R}^{18}$  taken together can form a group consisting of ketal, thioketal,

$$= \begin{cases} & \\ & \\ & \end{cases}$$

wherein each of R<sup>22</sup> and R<sup>23</sup> is independently selected from the group consisting of hydrido and alkyl.

#### 2. A compound having the formula (I):

and salts thereof,

wherein R is:

wherein X and X" are independently selected from C=O, C=S, C=NH, C=NR $^{\rm X}$ , S=O or SO<sub>2</sub>;

wherein n is 0 or 1;

 $\label{eq:wherein R} wherein \, R^X \, is selected \, from \, alkyl, \, alkenyl, \, alkynyl, \, aryl, \, heteroaryl, \, cycloalkyl, \, heterocyclyl, \, hydroxyl, \, alkoxy, \, carboxy \, or \, carboalkoxy, \,$ 

wherein B is  $X^{\mathsf{T}}R^{\mathsf{T}}$ , H, alkyl, alkenyl, alkynyl, aryl, heteroaryl,

cycloalkyl or heterocyclyl; and

 $wherein \, R^Y \, is \, selected \, from \, hydrido, \, alkyl, \, alkenyl, \, alkynyl, \, aryl, \, heteroaryl, \, cycloalkyl, \, heterocyclyl \, or \, hydroxyl; \,$ 

wherein A is aryl;

provided that when B is H and X is C=O, then A is other than a phenyl ring substituted with either:

- (a)  $-O-((C_8-C_{15})$  unsubstituted alkyl), wherein said phenyl ring may be further optionally substituted with one substituent selected from halo, nitro,  $(C_1-C_3)$  alkyl, hydroxyl,  $(C_1-C_3)$  alkoxy or  $(C_1-C_3)$  alkylthio; or
- (b)  $-NHC(O)R^D$ , wherein the phenyl ring may be further optionally substituted with 1-2 substituents independently selected from amino, nitro,  $(C_1-C_3)$  alkyl, hydroxyl,  $(C_1-C_3)$  alkoxy, halo, mercapto,  $(C_1-C_3)$  alkylthio, carbamyl or  $(C_1-C_3)$  alkylcarbamyl, wherein  $R^D$  is  $(C_1-C_{17})$  unsubstituted alkyl or  $(C_2-C_{17})$  unsubstituted alkenyl;

 $\label{eq:condition} \text{wherein X'} \text{ and X'''} \text{ are independently selected from C=O, C=S, C=NH,} \\ C=NR^{N'}, S=O \text{ or } SO_2;$ 

wherein m is 0 or 1;

 $\label{eq:wherein R} wherein \, R^{X'} \, is \, selected \, from \, alkyl, \, alkenyl, \, alkynyl, \, aryl, \, heteroaryl, \, cycloalkyl, \, heterocyclyl, \, hydroxyl, \, alkoxy, \, carboxy \, or \, carboalkoxy;$ 

 $\label{eq:wherein B' is X'''R'', H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl;$ 

wherein  $\mathbf{R}^{Y}$  is selected from hydrido, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or hydroxyl:

wherein A' is H, NH<sub>2</sub>, NHR<sup>A'</sup>, NR<sup>A'</sup>R<sup>B'</sup>, alkyl, alkenyl, alkynyl, alkoxy, aryloxy, aryl, heteroaryl, cycloalkyl or heterocyclyl;

 $\label{eq:wherein R} Ward R^{B'} \mbox{ are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or carboalkoxy;}$ 

wherein when m is 0, then A' is additionally selected from:

wherein each of R50-R53 is independently selected from C1-C15 alkyl;

alternatively, wherein B' and A' together form a 5-7 membered heterocyclic or heteroaryl ring;

wherein R2 is

wherein K and K' together form a  $C_3$ - $C_7$  cycloalkyl or heterocyclyl ring or a  $C_3$ - $C_{10}$  aryl or heteroaryl ring;

wherein J is selected from the group consisting of hydrido, amino,  $NHR^{J},NR^{J}R^{K}, alkyl, alkenyl, alkynyl, alkoxy, aryloxy, aryl, heteroaryl, cycloalkyl, heterocyclyl, alkylamino, hydroxyl, thio, alkylthio, alkenylthio, sulfinyl, sulfonyl, azido, cyano, halo, <math display="block"> \frac{1}{2} \sum_{i=1}^{n} \frac{1}{2} \sum_{i=1}^$ 

wherein each of  $R^{24}$ , R25, and R26 is independently selected from the group consisting of alkyl, cycloalkyl, heterocyclyl, aryl and heteroaryl; or  $R^{24}$  and  $R^{25}$  together form a 5-8 membered heterocyclyl ring;

 $\label{eq:wherein} wherein R^J \mbox{ and } R^K \mbox{ are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl; or$ 

alternatively, wherein J, together with  $R^{17}$ , forms a 5-8 membered heterocyclyl or cycloalkyl ring; or

alternatively, wherein J, together with both R<sup>17</sup> and R<sup>18</sup>, forms a 5-8 membered aryl, cycloalkyl, heterocyclyl or heteroaryl ring; and

wherein each of R<sup>17</sup> and R<sup>18</sup> is independently selected from the group consisting of hydrido, halo, hydroxyl, alkoxy, amino, thio, sulfinyl, sulfonyl and

wherein  $\mathbf{R}^{17}$  and  $\mathbf{R}^{18}$  taken together can form a group consisting of ketal, thioketal,

$$= \begin{cases} & \\ \\ & \end{cases}$$

wherein each of  $R^{22}$  and  $R^{23}$  is independently selected from the group consisting of hydrido and alkyl.

### 3. A compound having the formula (I):

and salts thereof;

wherein R is:

wherein X and X" are independently selected from C=O, C=S, C=NH, C=NR $^{\rm X}$ , S=O or SO<sub>2</sub>;

wherein n is 0 or 1;

wherein  $R^X$  is selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl, hydroxyl, alkoxy, carboxy or carboalkoxy;

wherein B is  $X^mR^Y$ , H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl; and

 $wherein \, R^Y is \, selected \, from \, hydrido, \, alkyl, \, alkenyl, \, alkynyl, \, aryl, \, heteroaryl, \, cycloalkyl, \, heterocyclyl \, or \, hydroxyl; \,$ 

wherein A is alkyl, alkenyl, alkynyl, alkoxy or aryloxy; provided that when B is H and X is C=O, then A is other than

- (a) -(C1-C16 unsubstituted alkyl)-NH2;
- (b)  $-(C_1-C_{10} \text{ unsubstituted alkyl})-\text{NHC}(O)R^D$ , wherein  $R^D$  is  $(C_1-C_{17})$  unsubstituted alkyl or  $(C_2-C_{17})$  unsubstituted alkenyl;
- (c) -(C<sub>1</sub>-C<sub>18</sub>)-alkyl, optionally substituted with up to one hydroxyl, carboxyl, or C<sub>1</sub>-C<sub>3</sub> alkoxy, or one to three halo substituents;
- (d) -(C<sub>4</sub>-C<sub>18</sub>)-unsubstituted alkenyl;

wherein  $R^{54}$  is selected from  $C_1 \cdot C_{17}$ - unsubstituted alkyl or  $C_2 \cdot C_{17}$ unsubstituted alkenyl; wherein  $R^{55}$  is selected from hydroxyethyl, hydroxymethyl,
mercaptomethyl, mercaptoethyl, methylthioethyl, 2-thienyl, 3-indolemethyl, phenyl
optionally substituted with a group selected from halo, nitro,  $C_1 \cdot C_3$ -unsubstituted
alkyl, hydroxy,  $C_1 \cdot C_3$ -unsubstituted alkoxy,  $C_1 \cdot C_3$ -unsubstituted alkylcarbamyl; or  $C_1 \cdot C_3$  unsubstituted with a group

selected from halo, nitro,  $C_1$ - $C_3$ -unsubstituted alkyl, hydroxy,  $C_1$ - $C_3$ -unsubstituted alkylthio, carbamyl or  $C_1$ - $C_3$  unsubstituted alkylthio, carbamyl or  $C_1$ - $C_3$  unsubstituted alkylcarbamyl, wherein t is 0 or 1 and wherein u is an integer from 1-3; and

when B is H and X is C=O, then X, together with A, does not form a carbamate amino protecting group; and

when B is H and n is 0, then A is other than  $C_4$ - $C_{14}$  unsubstituted alkyl; wherein  $R^1$  is

wherein X' and X''' are independently selected from C=O, C=S, C=NH,  $C=NR^{X'}$ , S=O or SO<sub>2</sub>:

wherein m is 0 or 1;

 $\label{eq:wherein R} wherein \, R^X \ is selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl, hydroxyl, alkoxy, carboxy or carboalkoxy;$ 

wherein B' is  $X'''R^{Y'}$ , H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl;

wherein  $R^{Y}$  is selected from hydrido, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or hydroxyl;

 $\label{eq:wherein A' is H, NH2, NHRA', NR^A'R^B', alkyl, alkenyl, alkynyl, alkoxy, aryloxy, aryl, heteroaryl, cycloalkyl or heterocyclyl;$ 

 $\label{eq:wherein R^A' and R^B' are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or carboalkoxy;$ 

wherein when m is 0, then A' is additionally selected from:

$$- \left\{ \begin{array}{c} \bigcirc \\ -P \\ -Q \\ -Q \end{array} \right\} \circ OR^{50} \qquad - \left\{ \begin{array}{c} \bigcirc \\ -P \\ -Q \\ -Q \end{array} \right\} \circ R^{52} \qquad \text{and} \qquad - \left\{ \begin{array}{c} \bigcirc \\ -P \\ -Q \\ -Q \end{array} \right\} \circ OR^{50}$$

wherein each of R<sup>50</sup>-R<sup>55</sup> is independently selected from C<sub>1</sub>-C<sub>15</sub> alkyl; alternatively, wherein B' and A' together form a 5-7 membered heterocyclic or heteroaryl ring;

wherein K and K' together form a  $C_3$ - $C_7$  cycloalkyl or heterocyclyl ring or a  $C_5$ - $C_{10}$  aryl or heteroaryl ring;

wherein J is selected from the group consisting of hydrido, amino,  $NHR^{J},NR^{J}R^{K}, alkyl, alkenyl, alkynyl, alkoxy, aryloxy, aryl, heteroaryl, cycloalkyl, heterocyclyl, alkylamino, hydroxyl, thio, alkylthio, alkenylthio, sulfinyl, sulfonyl, azido, cyano, halo,$ 

$$- \begin{cases} S & \text{and} \\ - S & \text{OR}^{26} \end{cases}$$

wherein each of  $R^{24}$ ,  $R^{25}$ , and  $R^{26}$  is independently selected from the group consisting of alkyl, cycloalkyl, heterocyclyl, aryl and heteroaryl; or  $R^{24}$  and  $R^{25}$  together form a 5-8 membered heterocyclyl ring:

wherein R<sup>J</sup> and R<sup>K</sup> are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl; or

alternatively, wherein J, together with  $R^{17}$ , forms a 5-8 membered heterocyclyl or cycloalkyl ring; or

alternatively, wherein J, together with both R<sup>17</sup> and R<sup>18</sup>, forms a 5-8 membered aryl, cycloalkyl, heterocyclyl or heteroaryl ring; and

wherein each of R<sup>17</sup> and R<sup>18</sup> is independently selected from the group consisting of hydrido, halo, hydroxyl, alkoxy, amino, thio, sulfinyl, sulfonyl and

wherein R17 and R18 taken together can form a group consisting of

ketal, thioketal,

wherein each of  $R^{22}$  and  $R^{23}$  is independently selected from the group consisting of hydrido and alkyl.

## 4. A compound having the formula (I):

and salts thereof;

wherein R is:

wherein X and X" are independently selected from C=O, C=S, C=NH, C=NR $^{\rm X}$ , S=O or SO;

wherein n is 0 or 1;

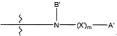
 $wherein \ R^X \ is selected \ from \ alkyl, \ alkenyl, \ alkynyl, \ aryl, \ heteroaryl, \\ cycloalkyl, \ heterocyclyl, \ hydroxyl, \ alkoxy, \ carboxy \ or \ carboalkoxy;$ 

wherein B is  $X^mR^Y$ , H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl, and

 $\label{eq:wherein R} wherein \, R^Y \, is \, selected \, from \, hydrido, \, alkyl, \, alkenyl, \, alkynyl, \, aryl, \, heteroaryl, \, cycloalkyl, \, heterocyclyl \, or \, hydroxyl; \,$ 

 $\label{eq:whereinB} \mbox{ and A together form a 5-7 membered \ heterocyclic or} \\ \mbox{ heteroaryl ring;}$ 

wherein R<sup>1</sup> is



 $\label{eq:condition} \text{wherein } X' \text{ and } X''' \text{ are independently selected from C=O, C=S, C=NH, C=NR}^X', S=O \text{ or } SO_2;$ 

wherein m is 0 or 1;

wherein  $\mathbf{R}^{\mathbf{X}}$  is selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl, hydroxyl, alkoxy, carboxy or carboalkoxy;

 $\label{eq:wherein B'} wherein B' is X^{"R}^{Y'}\!, H, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl;$ 

wherein  $R^{Y}$  is selected from hydrido, alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or hydroxyl;

wherein A' is H, NH<sub>2</sub>, NHR<sup>A'</sup>, NR<sup>A'</sup>R<sup>B'</sup>, alkyl, alkenyl, alkynyl, alkoxy, aryloxy, aryl, heteroaryl, cycloalkyl or heterocyclyl;

 $\label{eq:wherein R^A' and R^B'} \mbox{ are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl, heterocyclyl or carboalkoxy;}$ 

wherein when m is 0, then A' is additionally selected from:

$$- \begin{cases} P & \text{OR}^{50} \\ P & \text{OR}^{51} \end{cases} \qquad \begin{cases} P & \text{And} \\ R^{53} & \text{And} \end{cases} \qquad \begin{cases} P & \text{OR}^{5} \\ P^{53} & \text{OR}^{53} \end{cases}$$

 $\label{eq:wherein each of R} wherein \ each of R^{50}-R^{53} \ is independently selected from \ C_1-C_1s \ alkyl;$   $alternatively, \ wherein \ B' \ and \ A' \ together \ form \ a \ 5-7 \ membered$  heterocyclic or heteroaryl ring;

wherein R2 is

 $\label{eq:condition} wherein \ K \ and \ K' \ together form \ a \ C_3-C_7 \ cycloalkyl \ or \ heterocyclyl \ ring \\ or \ a \ C_5-C_{10} \ aryl \ or \ heteroaryl \ ring;$ 

wherein J is selected from the group consisting of hydrido, amino, NHR<sup>J</sup>, NR<sup>J</sup>R<sup>K</sup>, alkyl, alkenyl, alkynyl, alkoxy, aryloxy, aryl, heteroaryl, cycloalkyl, heterocyclyl, alkylamino, hydroxyl, thio, alkylthio, alkenylthio, sulfinyl, sulfonyl, azido, cyano, halo,

$$- \begin{cases} S & \text{and} \\ - S & \text{OR}^{26} \end{cases}$$

wherein each of  $R^{24}$ ,  $R^{25}$ , and  $R^{26}$  is independently selected from the group consisting of alkyl, cycloalkyl, heterocyclyl, aryl and heteroaryl; or  $R^{24}$  and  $R^{25}$  together form a 5-8 membered heterocyclyl ring;

wherein  $R^J$  and  $R^K$  are independently selected from alkyl, alkenyl, alkynyl, aryl, heteroaryl, cycloalkyl or heterocyclyl; or

alternatively, wherein J, together with  $R^{17}$ , forms a 5-8 membered heterocyclyl or cycloalkyl ring; or

alternatively, wherein J, together with both R<sup>17</sup> and R<sup>18</sup>, forms a 5-8 membered aryl, cycloalkyl, heterocyclyl or heteroaryl ring; and

wherein each of R<sup>17</sup> and R<sup>18</sup> is independently selected from the group consisting of hydrido, halo, hydroxyl, alkoxy, amino, thio, sulfinyl, sulfonyl and

; 01

wherein  $\mathbf{R}^{17}$  and  $\mathbf{R}^{18}$  taken together can form a group consisting of ketal, thioketal,

$$= \begin{cases} & \\ & \\ & \end{cases}$$

wherein each of  $R^{22}$  and  $R^{23}$  is independently selected from the group consisting of hydrido and alkyl.

5. The compound according to any of claims 1-4, wherein R is selected from the group consisting of:

wherein each of  $R^3$ ,  $R^4$   $R^5$ , and  $R^6$  is independently selected from the group consisting of hydrido, alkyl, aryl, heterocyclyl and heteroaryl, and wherein  $R^{44}$  is selected from the group consisting of alkyl, aryl, heterocyclyl and heteroaryl.

6. The compound according to claim 5, wherein R is selected from

$$R^{5}$$
 and  $R^{5}$   $R^{4}$ 

wherein  $R^{4\prime}$  is selected from the group consisting of alkyl, aryl-substituted alkyl, substituted phenyl, heteroaryl, heterocyclyl, optionally substituted ( $C_8$ - $C_{14}$ )-straight chain alkyl and  $SR^7$ ; wherein  $R^7$  is an alkyl group.

 $\label{eq:continuous} 7. \ \ \mbox{The compound according to claim 6, wherein $R$ is selected from the group consisting of }$ 

wherein X3 is chloro or trifluoromethyl and wherein q is 0 or 1.

8. The compound according to any of claims 1-4, wherein  $\mathbf{R}^1$  is selected from the group consisting of:

wherein  $\mathbb{R}^8$  is selected from a natural amino acid side chain or an amino acid side chain that is not naturally occurring;

 $\label{eq:wherein each of R} \text{N}^9, R^{10} \text{ and } R^{11} \text{ is selected from hydrido, alkyl, aryl,} \\ \text{heterocyclyl and heteroaryl;}$ 

 $\label{eq:wherein} wherein \, R^{12} \mbox{ is selected from the group consisting of heterocyclyl,} \\ \mbox{ heteroaryl, aryl, and alkyl and}$ 

wherein  $R^{13}$  is selected from (C1-C3-alkyl) and aryl.

9. The compound according to claim 8, wherein  $\mathbf{R}^1$  is selected from the group consisting of:

$$X_{N}^{N}$$
  $X_{N}^{N}$   $X_{N}^{N}$   $X_{N}^{N}$   $X_{N}^{N}$   $X_{N}^{N}$   $X_{N}^{N}$   $X_{N}^{N}$ 

wherein  $R^8$  is selected from tryptophan side chain and lysine side chain:

wherein each of  $\mathbf{R}^{10}$  and  $\mathbf{R}^{11}$  is independently selected from hydrido and alkyl,

 $\label{eq:wherein R} $^{12}$ is selected from imidazolyl, N-methylimidazolyl, indolyl, quinolinyl, benzyloxybenzyl, and benzylpiperidenylbenzyl; and wherein X is selected from fluoro, and trifluoromethyl.$ 

10. The compound according to any of claims 1-4, wherein J is selected from the group consisting of hydrido, amino, azido and

wherein R17 and R18 taken together form a group selected from ketal,

$$= \begin{cases} = 0 & \text{and} & = \end{cases} = NOR^{22}$$

or wherein R<sup>17</sup> is hydroxyl when R<sup>18</sup> is hydrido; or wherein J, together with R<sup>17</sup>, forms a heterocyclyl ring.

11. The compound according to claim 10, wherein  $R^2$  is selected from the group consisting of

and

wherein R<sup>17</sup> and R<sup>18</sup> taken together form a group selected from

$$= \begin{cases} = & \text{o} \\ & \text{and} \end{cases} = \begin{cases} = & \text{NOR}^{22} \\ & \text{, wherein } R^{22} \text{ is selected from the group} \end{cases}$$

consisting of H and alkyl; and wherein  $R^{19}$  is selected from the group consisting of

nyarrao, ammo, azido and

12. The compound according to claim 11, wherein R2 is

13. The compound according to any one of claims 1-4 wherein said compound is selected from

Cpd #	R	$\mathbb{R}^1$	R <sup>2</sup>
1	NHCONH(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	NH <sub>2</sub>	O NH
2	NHCONH(CH <sub>2</sub> ) <sub>11</sub> CH <sub>3</sub>	NH <sub>2</sub>	O NH2
3	NHCONH(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>	HN NH <sub>2</sub>	O NH <sub>2</sub>
5	HN CI	HN NH2 NH	O NH2
6	HN NH <sub>2</sub> NHTs	HN NH2 NH	O NH2

7	NH(CH₂)8CH₃	NH <sub>2</sub> NH <sub>2</sub>	
8	NHCO(CH <sub>2</sub> ) <sub>8</sub> CO <sub>2</sub> CH <sub>3</sub>	O NH <sub>2</sub>	
9	NHCO(CH <sub>2</sub> ) <sub>6</sub> CO <sub>2</sub> CH <sub>3</sub>	O N N N N N N N N N N N N N N N N N N N	
10	NHCO(CH₂)6NHBoc	HN NHBoc N	N. N
11	NHCO(CH <sub>2</sub> ) <sub>7</sub> NHBoc	NHBoc Z	O NH2
12	NHCO(CH <sub>2</sub> ) <sub>10</sub> NHBoc	HN NHBoc N	NH2
13	NHCO(CH <sub>2</sub> ) <sub>11</sub> NHBoc	HN NHBoc N	NH <sub>2</sub>
17	NHCONH(CH <sub>2</sub> ) <sub>11</sub> CH <sub>3</sub>	NH <sub>2</sub>	NH2
18	HNCI	NH <sub>2</sub>	NET
19	HN S	NH <sub>2</sub>	NHZ THE NHZ
20	HN_O_CI	HN NH2 NH	NH2
21	HN CI	HN NH2 NH2	O NH <sub>2</sub>
22	HN OPh	HN NH2 NH	O NH2
23	HN O O Bu	HN HZ	O NH <sub>2</sub>
24	HN CI	HIN NH <sub>2</sub> NH <sub>2</sub>	O NH <sub>2</sub>

25	HN CI	HN NH <sub>2</sub>	NH <sub>2</sub>
34	HN CI	NBoc HN NHBoc	
35	HN N-N-Heptyl	HN NH2 NH	D NE
36	HN N=N N-N Heptyl	HN NHBoc N	O NH <sub>2</sub>
40	HN N=N CI	NH <sub>2</sub>	O NH2
41	HN N N CI	NHBoc	
43	HN NH	NHBoc	O NH <sub>2</sub>
44	HN S	NHBoc	O NH <sub>2</sub>
48	NHCONH(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>	NH <sub>2</sub>	NH2
49	HN S CI	NH <sub>2</sub>	
50	HN CI	NH HN NH <sub>2</sub>	NHZ
56	NHCONH(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	NHBoc NHBoc	NH2
57	NHCONH(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>	NHBoc NHBoc	ž (
58	NHCONH(CH <sub>2</sub> ) <sub>11</sub> CH <sub>3</sub>	NHBoc NHBoc	S Z
62	NHCONH(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	HN NH <sub>2</sub>	NET NET
63	NHCONH(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>	HN NH <sub>2</sub>	NH2

64	NHCONH(CH <sub>2</sub> ) <sub>11</sub> CH <sub>3</sub>	HN NH <sub>2</sub>	O NH2
69	NHCONH(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	IN NH2 NH	NH <sub>2</sub>
70	NHCONH(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	O NH <sub>2</sub>	DE SET SET SET SET SET SET SET SET SET SE
71	NHCONH(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	HN NH <sub>2</sub>	o Z
75	NHCONH(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>	NBoc HN NHBoc	0 Z Z
76	NHCONH(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	HN OCH3	O ZH2
77	NHCONH(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	112 X X X	D Z
78	NHCONH(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	HN NO2	O NH2
87	NHCONH(CH <sub>2</sub> ) <sub>11</sub> CH <sub>3</sub>	HN OCH3	ž Į
88	NHCONH(CH <sub>2</sub> ) <sub>11</sub> CH <sub>3</sub>	HN NO2	NH2
89	NHCONH(CH <sub>2</sub> ) <sub>11</sub> CH <sub>3</sub>	HN N N	
100	O HN (CH <sub>2</sub> ) <sub>6</sub> CH <sub>3</sub> NH <sub>2</sub>	NH <sub>2</sub>	0 Z±2
106	HN CI	O NH <sub>2</sub>	D Z Z
108	NHCONH(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>	O NH <sub>2</sub>	O ZH
113	NHCONH(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>	HT. Z	O NH <sub>2</sub>
114	NHCONH(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>	HN OCH3	O NH <sub>2</sub>
115	HN	NHBoc	O NH2

116	HN ————————————————————————————————————	NH <sub>2</sub>	NH <sub>2</sub>
117	NHCONH(CH <sub>2</sub> ) <sub>8</sub> CH <sub>3</sub>	NHBoc	NH <sub>2</sub>
118	NHCONH(CH <sub>2</sub> ) <sub>8</sub> CH <sub>3</sub>	$\mathrm{NH}_2$	
119	NHCONH(CH <sub>2</sub> ) <sub>9</sub> CH <sub>3</sub>	NHBoc	NH <sub>2</sub>
120	NHCONH(CH <sub>2</sub> ) <sub>9</sub> CH <sub>3</sub>	NH <sub>2</sub>	o NH2
123	NHCOCH <sub>2</sub> S(CH <sub>2</sub> ) <sub>11</sub> CH <sub>3</sub>	NH <sub>2</sub>	O NH2
124	NHCOCH <sub>2</sub> S(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>	NH <sub>2</sub>	\$ - \frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\fir}}}}}}{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac{\frac}\frac{\frac{\frac{\frac{\frac{\fi
125	NHCOCH <sub>2</sub> S(CH <sub>2</sub> ) <sub>9</sub> CH <sub>3</sub>	NH <sub>2</sub>	DE SE

# 14. The compound of claim 13 wherein said compound is selected

from

Cpd #	R	$\mathbb{R}^1$	R <sup>2</sup>
2	NHCONH(CH <sub>2</sub> ) <sub>11</sub> CH <sub>3</sub>	NH <sub>2</sub>	O NH <sub>2</sub>
3	NHCONH(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>	HN NH2 NH	
18	HN CI	NH <sub>2</sub>	O NH2
48	NHCONH(CH <sub>2</sub> ) <sub>10</sub> CH <sub>3</sub>	NH <sub>2</sub>	O NH2
89	NHCONH(CH <sub>2</sub> ) <sub>11</sub> CH <sub>3</sub>	TZ ZZ	O NH2

118	NHCONH(CH <sub>2</sub> ) <sub>8</sub> CH <sub>3</sub>	NH <sub>2</sub>	O NH <sub>2</sub>
120	NHCONH(CH <sub>2</sub> ) <sub>9</sub> CH <sub>3</sub>	NH <sub>2</sub>	

- 15. A pharmaceutical composition comprising the compound according to any one of claims 1-4 and a pharmaceutically acceptable carrier.
- 16. A method of treating or preventing a bacterial infection in a subject, comprising the step of administering a therapeutically-effective amount of the pharmaceutical composition according to claim 15 to a subject in need thereof.
- 17. The method according to claim 16, wherein said subject is selected from the group consisting of a human, an animal, a cell culture or a plant.
- 18. The method according to claim 16, wherein said bacterial infection is caused by a gram-positive bacteria.
- The method according to claim 18, wherein said bacteria is an antibiotic-resistant bacteria
- 20. The method according to claim 19, wherein said antibiotic-resistant bacteria are resistant to an antibiotic selected from the group consisting of vancomycin, methicillin, glycopeptide antibiotics, penicillin and daptomycin.
- 21. The method according to claim 16, further comprising the step of co-administering more than one compound of Formula (I) to a subject in need thereof.
- 22 The method according to claim 16, further comprising the step of co-administering an antimicrobial agent other than a compound of Formula (I) to a subject in need thereof.

- 23. The method according to claim 22, wherein said antimicrobial agent is selected from the group consisting of penicillins and related drugs, carbapenems, cephalosporins and related drugs, aminoglycosides, bacitracin, gramicidin, mupirocin, chloramphenicol, thiamphenicol, fusidate sodium, lincomycin, clindamycin, macrolides, novobiocin, polymyxins, rifamycins, spectinomycin, tetracyclines, vancomycin, teicoplanin, streptogramins, anti-folate agents including sulfonamides, trimethoprim and its combinations and pyrimethamine, synthetic antibacterials including nitrofurans, methenamine mandelate and methenamine hippurate, nitroimidazoles, quinolones, fluoroquinolones, isoniazid, ethambutol, pyrazinamide, para-aminosalicylic acid (PAS), cycloserine, capreomycin, ethionamide, prothionamide, thiacetazone, viomycin, eveminomycin, glycopeptide, glycylcylcline, ketolides, oxazolidinone; imipenen, amikacin, netilmicin, fosfomycin, gentamicin, ceftriaxone, Ziracin, LY 333328, CL 331002, HMR 3647, Linezolid, Synercid, Aztreonam, and Metronidazole, Epiroprim, OCA-983, GV-143253, Sanfetrinem sodium, CS-834, Biapenem, A-99058.1, A-165600, A-179796, KA 159, Dynemicin A, DX8739, DU 6681; Cefluprenam, ER 35786, Cefoselis, Sanfetrinem celexetil, HGP-31, Cefpirome, HMR-3647, RU-59863, Mersacidin, KP 736, Rifalazil; Kosan, AM 1732, MEN 10700, Lenapenem, BO 2502A, NE-1530, PR 39, K130, OPC 20000, OPC 2045, Veneprim, PD 138312, PD 140248, CP 111905, Sulopenem, ritipenam acoxyl, RO-65-5788, Cyclothialidine, Sch-40832, SEP-132613, micacocidin A. SB-275833. SR-15402. SUN A0026. TOC 39. carumonam. Cefozopran, Cefetamet pivoxil, and T 3811.
- 24. The method according to claim 22, wherein said antimicrobial agent is selected from the group consisting of imipenen, amikacin, netilmicin, fosfomycin, gentamicin, ceftriaxone, teicoplanin, Ziracin, LY333328, CL331022, HMR3647, Linezolid, Synercid, Aztreonam and Metronidazole.
- 25. The method according to claim 17, wherein said subject is selected from the group consisting of a human or an animal.

26. The method according to claim 25, wherein said subject is a human.

### 27. A compound having the formula (II):

wherein R14 is selected from the group consisting of

wherein  $R^{56}$  is an optionally substituted straight-chain  $C_8\text{-}C_{14}$  alkyl group and wherein  $q^\prime$  is 0-3.

28. The compound according to claim 27, wherein said compound is selected from:

Compound #	$\mathbb{R}^{14}$
45	OH jd (CH₂)₅CH₃
37	OH (CH <sub>2</sub> ) <sub>5</sub> CH <sub>3</sub>
46	OH ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
38	OH 
47	OH prof (CH <sub>2</sub> ) <sub>9</sub> CH <sub>3</sub>
39	OH (CH2)10CH3

## 29. A compound having the formula (I'):

$$HO_2C$$
 $HO_2C$ 
 $HO_2$ 

and salts thereof, wherein  $R^{100}$ ,  $R^{101}$  and  $R^{102}$  are selected from:

Cpd #	R	$\mathbb{R}^1$	R <sup>2</sup>
72	O (CH <sub>2</sub> ) <sub>8</sub> CH <sub>3</sub>	NHBoc	NH2
73	O HN (CH <sub>2</sub> ) <sub>11</sub> CH <sub>3</sub>	NHBoc	
74	O OH HN (CH <sub>2</sub> ) <sub>12</sub> CH <sub>3</sub>	NHBoc	O NH2
109	NHCOCHCH(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	NHBoc	≥
110	NHCOCHCH(CH <sub>2</sub> ) <sub>9</sub> CH <sub>3</sub>	NHBoc	O NH2
111	NHCOCHCH(CH <sub>2</sub> ) <sub>7</sub> CH <sub>3</sub>	NH <sub>2</sub>	
112	NHCOCHCH(CH <sub>2</sub> ) <sub>9</sub> CH <sub>3</sub>	NH <sub>2</sub>	O NH2

30. A method of using the compound according to any one of claims 27-29 to make a compound according to any one of claims 1-4.